AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims

1-21. (Canceled)

22. (Previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-DevS, said method comprising:

a) providing a system in which recombinant DevR and DevS are expressed;

b) in the presence of a test compound, autophosphorylating DevS protein and thereafter transferring phosphoryl moiety to DevR;

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of DevS protein, (ii) the degree of phosphotransfer from phosphorylated DevS to DevR, and (iii) the degree of loss of phosphate-associated radioactivity from DevS or DevR in a reaction containing DevS and DevR.

23. (Previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-DevS, said method comprising:

a) providing a system in which recombinant DevR and a recombinant single domain derivative of DevS are expressed;

b) in the presence of a test compound, autophosphorylating single domain derivative of DevS protein and thereafter transferring phosphoryl moiety to DevR

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of a single domain derivative of DevS protein, (ii) the degree of phosphotransfer from a phosphorylated single domain derivative of DevS to DevR, and (iii) the degree of loss of phosphate-associated radioactivity from a single domain derivative of DevS or DevR in a reaction containing a single domain derivative of DevS and DevR.

24. (previously presented) The method as claimed in claim 23, wherein the DevS derivative is selected from the group consisting of $DevS_{201}$, $DevS_{578}$, $DevS_{201}$-H395Q, $DevS_{201}$-H397Q, $DevS_{201}$-H397A, and $DevS_{201}$-N503D.

25. (previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-DevS, said method comprising:

a) providing a system in which a recombinant single domain derivative of DevR and recombinant DevS are expressed;

b) in the presence of a test compound, autophosphorylating DevS protein and thereafter transferring phosphoryl moiety to a single domain derivative of DevR

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of DevS protein, (ii) the degree of phosphotransfer from phosphorylated DevS to a single domain derivative of DevR, and (iii) the degree of loss of phosphate-associated radioactivity from DevS or a single domain derivative of DevR in a reaction containing DevS and a single domain derivative of DevR.

26. (previously presented) The method as claimed in claim 25, wherein the DevR derivative is $DevRN_{145}$ or the mutant protein is selected from the group consisting of DevR-D8N, DevR-D9N, DevR-D54V, DevR-D54N and DevR-K104E.

27. (previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-DevS, said method comprising:

a) providing a system in which a recombinant single domain derivative of DevR and a recombinant single domain derivative of DevS are expressed

b) in the presence of a test compound, autophosphorylating a single domain derivative of DevS protein and thereafter transferring phosphoryl moiety to a single domain derivative of DevR;

c) analyzing the reaction products by SDS-PAGE or high throughput format; determining whether, in the presence of test compound, either and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of phosphorylation of autophosphorylation of a single domain derivative of DevS protein, (ii) the degree of phosphotransfer from a phosphorylated single domain derivative of DevS to a single domain derivative of DevR, and (iii) the degree of loss of phosphate-associated

radioactivity from a single domain derivative of DevS or a single domain derivative of DevR in a reaction containing a single domain derivative of DevS and a single domain derivative of DevR.

28. (previously presented) The method as claimed in claim 27, wherein the DevS derivative is selected from the group consisting of $DevS_{201}$, $DevS_{578}$, $DevS_{201}$-H395Q, $DevS_{201}$-H397Q, $DevS_{201}$-H397A, and $DevS_{201}$-N503D.

29. (previously presented) The method as claimed in claim 27, wherein the DevR derivative is $DevRN_{145}$ or the mutant protein is selected from the group consisting of DevR-D8N, DevR-D9N, DevR-D54V, DevR-D54N and DevR-K104E.

30. (Previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-Rv2027c, said method comprising:

a) providing a system in which recombinant DevR and Rv2027c are expressed;

b) in the presence of a test compound, autophosphorylating Rv2027c protein and thereafter transferring phosphoryl moiety to DevR

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is

inversely proportional to (i) the degree of autophosphorylation of Rv2027c protein, (ii) the degree of phosphotransfer from phosphorylated Rv2027c to DevR, and (iii) the degree of loss of phosphate-associated radioactivity from Rv2027c or DevR in a reaction containing Rv2027c and DevR.

31. (previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-Rv2027c, said method comprising:

a) providing a system in which recombinant DevR and a recombinant single domain derivative of Rv2027c are expressed;

b) in the presence of a test compound, autophosphorylating a single domain derivative of Rv2027c protein and thereafter transferring phosphoryl moiety to DevR

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of a single domain derivative of Rv2027c protein, (ii) the degree of phosphotransfer from a phosphorylated single domain derivative of Rv2027c to DevR, and (iii) the degree of loss of phosphate-

associated radioactivity from a single domain derivative of Rv2027c or DevR in a reaction containing a single domain derivative of Rv2027c and DevR.

32. (previously presented) The method as claimed in claim 31, wherein the Rv2027c derivative is selected from the group consisting of $Rv2027_{194}$ and $Rv2027_{194}$-H392Q.

33. (previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-Rv2027c, said method comprising:

a) providing a system in which a recombinant single domain derivative of DevR and recombinant Rv2027c are expressed;

b) in the presence of a test compound, autophosphorylating Rv2027c protein and thereafter transferring phosphoryl moiety to a single domain derivative of DevR

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of Rv2027c protein, (ii) the degree of phosphotransfer from

phosphorylated Rv2027c to a single domain derivative of DevR, and (iii) the degree of loss of phosphate-associated radioactivity from Rv2027c or a single domain derivative of DevR in a reaction containing Rv2027c and a single domain derivative of DevR.

34. (previously presented) The method as claimed in claim 33, wherein the DevR derivative is $DevRN_{145}$ or the mutant protein is selected from the group consisting of DevR-D8N, DevR-D9N, DevR-D54V, DevR-D54N and DevR-K104E.

35. (previously presented) A method for identifying drugs against mycobacterial species having a two-component system of DevR-Rv2027c, said method comprising:

a) providing a system in which a recombinant single domain derivative of DevR and a recombinant single domain derivative of Rv2027c are expressed;

b) in the presence of a test compound, autophosphorylating a single domain derivative of Rv2027c protein and thereafter transferring phosphoryl moiety to a single domain derivative of DevR;

c) analyzing the reaction products by SDS-PAGE or high throughput format; and

d) determining the anti-mycobacterial drug potential of the test compound; wherein the drug potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of a

single domain derivative of Rv2027c protein, (ii) the degree of phosphotransfer from a phosphorylated single domain derivative of Rv2027c to a single domain derivative of DevR, and (iii) the degree of loss of phosphate-associated radioactivity from a single domain derivative of Rv2027c or a single domain derivative of DevR in a reaction containing a single domain derivative of Rv2027c and a single domain derivative of DevR.

36. (previously presented) The method as claimed in 35, wherein the Rv2027c derivative is selected from the group consisting of $Rv2027_{194}$ and $Rv2027_{194}$-H392Q.

37. (previously presented) The method as claimed in claim 35, wherein the DevR derivative is $DevRN_{145}$ or the mutant protein is selected from the group consisting of DevR-D8N, DevR-D9N, DevR-D54V, DevR-D54N and DevR-K104E.